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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,150	03/15/2004	Scott J. Healy	020.0329.US.UTL	2173

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CASCADIA INTELLECTUAL PROPERTY
500 UNION STREET
STE.1005
SEATTLE, WA 98101

EXAMINER	
NALVEN, ANDREW L	
ART UNIT	**PAPER NUMBER**
2134	

MAIL DATE	DELIVERY MODE
01/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/801,150	HEALY ET AL.	
	Examiner	Art Unit	
	Andrew L. Nalven	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-19 and 21-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 8-19, 21-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *3/15/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-6, 8-19, 21-30 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. **Claims 1-6, 8-9, 12-19, 21-22, and 25-30 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Thompson US Patent No. 7,027,872 in view of Lee US Patent No. 6,442,432 and Nelson et al US PGPub 2001/0023360.

3. **With regards to claims 1, 14, and 27-30**, Thompson teaches a crypto key uniquely associated with an implantable medical device to encrypt sensitive information during a data exchange session (Thompson, column 8 lines 18-50, key for encrypting data from a particular IMD) and an external source to security obtain the crypto key over a secure connection from a secure key repository securely maintaining the crypto key (Thompson, column 10 lines 39-42, key source provides encryption keys) to encrypt sensitive information using the crypto key (Thompson, column 10 lines 21-26, encrypted sensitive information), but fails to teach storing the sensitive information as encrypted

data onto the implantable medical device and storing unencrypted data. However, Lee teaches storing the sensitive information as encrypted data onto the implantable medical device (Lee, column 16 lines 10-15, end to end encryption whereby encrypted data is sent from central computer to IMD-implanted medical device). Further, Nelson teaches at least part of the sensitive information is securely stored as unencrypted data onto the implantable medical over a secure connection (Nelson, paragraph 0046, stores pre-loaded digital signatures as well as patient information). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Lee's method of storing encrypted data on the implantable medical device and Nelson's method of storing encrypted and unencrypted data on an implantable medical device because it offers the advantage of protecting sensitive data from access by unauthorized persons and protecting the medical device from improper snooping and improper instructions (Lee, column 15 line 63 – column 16 line 4) and providing methods of authentication and validation to prevent unauthorized users from accessing the medical device (Nelson, paragraph 0046).

4. **With regards to claims 2 and 15**, Thompson as modified teaches a short range interface to logically define a secured area around the implantable medical device within which to securely obtain the crypto key (Lee, column 11 lines 3-24, column 15 lines 38-60) and a long range interface to locally define a non-secured area extending beyond the secured area within which to exchange the encrypted data (Lee, column 16 lines 33-49).

5. **With regards to claims 3 and 16**, Thompson as modified teaches the encrypted data is retrieved from the implantable medical device over a non-secure connection and the encrypted data is decrypted as the sensitive data using the crypto key (Lee, column 16 lines 10-15, encrypted from IMD to central computer).

6. **With regards to claim 4 and 17**, Thompson as modified teaches the crypto key is securely retrieved over a secure connection from the secure key repository prior to decrypting the encrypted data (Thompson, column 8 lines 48-50).

7. **With regards to claims 5 and 18**, Thompson as modified teaches the encrypted data is retrieved through long-range telemetry (Thompson, column 11 lines 3-6, radio frequency).

8. **With regards to claims 6 and 19**, Thompson as modified teaches the long range telemetry comprised of radio frequency telemetry (Thompson, column 11 lines 3-6, radio frequency).

9. **With regards to claims 8 and 21**, Thompson as modified teaches the unencrypted data is securely retrieved from the implantable medical device over a secure connection (Lee, column 15 lines 1-20, patient data is tunneled).

10. **With regards to claim 9 and 22**, Thompson as modified teaches the crypto key is securely retrieved from the secure key repository through a programmer (Thompson, column 8 lines 48-50).

11. **With regards to claims 12 and 25**, Thompson as modified teaches the external source comprises at least one of a programmer and a repeater (Thompson, column 8 lines 48-50, programmer).

12. **With regards to claims 13 and 26**, Examiner takes official notice that the use of the advanced encryption standard is well known in the art and it would have been obvious to one of ordinary skill in the art to use the AES algorithm because it provides a strong effective means of data encryption.

13. **Claims 10-11 and 23-24 are rejected under 35 U.S.C. 103(a)** as being unpatentable over Thompson US Patent No. 7,027,872, Nelson et al US PGPub 2001/0023360 and Lee US Patent No. 6,442,432, as applied to claims 1 and 14 above, and in further view of Eckmiller et al US Patent No. 6,493,587.

14. **With regards to claims 10 and 23,** Thompson as modified fails to specifically teach the crypto key is maintained on the implantable medical device and the crypto key is retrieved through short-range telemetry. Eckmiller teaches the crypto key is maintained on the implantable medical device (Eckmiller, column 9 lines 28-53, stores public and private keys) and the crypto key is retrieved through short-range telemetry (Eckmiller, column 9 lines 28-53, passes public key). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize Eckmiller's method of storing and retrieving keys because it offers the advantage of preventing the unauthorized access to important functions of neuroprosthesis and unauthorized imitation of components (Eckmiller, column 3 lines 5-15).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Nalven whose telephone number is 571 272 3839. The examiner can normally be reached on Monday - Thursday 8-6, Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on 571 272 3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrew Nalven